

## METHODS AND COMPOSITIONS FOR PRODUCING BIOPOLYMERIC ARRAYS

### ABSTRACT

5       Methods and compositions are provided for producing arrays of polymeric binding agents. In the subject methods, the individual polymers of the array are synthesized using solid phase synthesis techniques on the surface of a substrate. A critical feature of the invention is that one or more locations on the substrate surface are spatially and temporally protected by a protective bubble during the synthesis  
10   protocol, where the protective bubble may be produced using any convenient bubble producing means. The bubble producing means may be a component of either a substrate or a structure separate from the substrate. Also provided are the arrays produced by the subject methods, kits for use in practicing the subject methods, and methods of using the arrays in analyte detection assays, including hybridization  
15   assays, such as gene discovery, differential gene expression and gene sequencing assays.